

Appl. No.: 10/651,137
Reply to Office Action of: December 15, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listing, of claims in the present application:

Listing of Claims:

1. (cancelled)
2. (currently amended) ~~The optical short circuit insert according to claim 1,~~
~~wherein~~ An optical short-circuit insert, being receivable in a plug housing and comprising:
a plug region; and
an optical fiber portion having two mutually parallel optical fiber ends positioned
within the plug region, the optical fiber portion has a curved portion being formed in an arc of
substantially 180 degrees and is formed of a multi-component glass core with cladding or a
multi-core glass fiber with cladding enveloped in a plastic carrier, the plastic carrier completely
envelops the optical fiber except for the optical end surfaces and has one or more shoulders for
primary securing and secondary securing of the short-circuit insert in a plug housing.
3. (currently amended) The optical short-circuit insert according to ~~claim 1~~ claim 2
wherein the mutually parallel, straight portions of the optical fiber portion have a center distance
of less than 10 mm, and the optical fiber portion provides a signal damping of less than 4 dB.
4. (currently amended) The optical short-circuit insert according to ~~claim 1~~ claim
2 wherein the mutually parallel, straight portions of the optical fiber portion have a center
distance of about 6 mm, and the optical fiber portion provides a signal damping of less than 4
dB.

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5. (previously presented) The optical short-circuit insert according to claim 3 wherein the optical fiber portion comprises a multi-component glass having a thickness of about 1 mm.

6. (previously presented) The optical short-circuit insert according to claim 3 wherein the optical fiber portion comprises a multi-conductor glass fiber having a thickness of about 1 mm.

7. (currently amended) The optical short-circuit insert according to ~~claim 1~~ claim 2 wherein the optical fiber portion comprises a multi-core glass fiber with cladding on each core.

8. (previously presented) The optical short-circuit insert according to claim 3 wherein the refractive index of the cladding is about 1.6, the refractive index of the core is about 1.5.

9. (previously presented) The optical short-circuit insert according to claim 3 wherein the core has a diameter of between about 30 and 70 μm and the cladding has a thickness of about 3 μm .

10. (previously presented) The optical short-circuit insert according to claim 3 wherein the core has a diameter of about 50 μm and the cladding has a thickness of about 3 μm .

11. (cancelled)

12. (cancelled)

13. (currently amended) ~~The optical short-circuit plug assembly according to claim 12 wherein the short-circuit insert has~~ An optical short-circuit plug assembly comprising:

a plug housing enveloping a plug;

a short-circuit insert received in the plug housing, the short-circuit insert being configured for accommodation in the plug housing, the short-circuit insert having a plug region

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with two mutually parallel optical fiber ends of an optical fiber portion in which the optical fiber portion has a curved portion guided in an arc of substantially 180 degrees and comprises a multi-component glass core with cladding or a multi-core glass fiber with cladding enveloped in a plastic carrier wherein the short circuit insert has a primary securing mechanism and a secondary securing mechanism for securing the short-circuit insert in the plug housing.

14. **(currently amended)** The optical short-circuit plug assembly according to ~~claim 11~~ claim 13 wherein the plug housing has latching means for securing the optical short-circuit plug with a complementary plug connector.

15. **(currently amended)** The optical short-circuit plug assembly according to ~~claim 11~~ claim 13 wherein the plug housing is a socket connector.

16. **(currently amended)** The optical short-circuit plug assembly according to ~~claim 11~~ claim 13, wherein the plug housing is capable of being brought into a socket connector.

17. **(currently amended)** A short-circuit insert for closing the ring of an optical data bus, the insert comprising:

a housing having two straight pillars interconnected by a head region,

first and second latching rings located on each of the pillars for receiving a latch insert;

and

an optical fiber disposed in the housing with two mutually parallel optical fiber ends disposed in the pillars and having end surfaces exposed at corresponding ends of the pillars, the optical fiber having a curved portion disposed in the head region and guided in an arc of substantially 180 degrees with a bend radius of less than 5 mm;

wherein the fiber comprises a multi-component glass core with cladding or a multi-core glass fiber with cladding.

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18. (previously presented) The short-circuit insert of claim 17, wherein the housing comprises two halves that are joined around the optical fiber.

19. (newly added) The optical short-circuit insert according to claim 2, wherein the secondary securing further comprises a latch insert engaging behind a secondary one of the one or more shoulders.

20. (newly added) The optical short-circuit plug assembly according to claim 13, wherein the primary securing mechanism comprises a first latching ring being receivable in a corresponding groove in a receiving region of a housing.

21. (newly added) The optical short-circuit plug assembly according to claim 19, wherein the secondary securing mechanism comprises a second latching ring for engaging a latch insert which is slidably received into engagement with the second latching ring.